

REMARKS/ARGUMENTS

The claims have been revised to more clearly define applicant's invention.

Applicant is claiming a connection between a pair of electrical components and a method for connecting the components. The components comprise a male component with an array of spaced apart bumps and a female component having a matching array of spaced apart wells. Bonding material substantially fills said wells. Each of the bumps extends into the materials in its matching well and bonds with the bonding material to form connections between the male and female component.

The primary reference shows an electric connector which has a single well 30 with a plurality of terminals 39 extending into the well. These terminals 39 are spaced so that they connect to the bonding pads of an integrated circuit chip when the chip is positioned in the well. A connection is made by solder bumps placed on each of the terminals.

Applicant's invention is entirely different. The bonding material substantially fills wells in an array of spaced apart wells and a male component includes bumps which match the wells and extend into the bonding material to form a connection. This arrangement is not thought or suggested by the single well 30 of the cited Patent No. 5,367,593. Accordingly, claim 1 clearly defines patentable subject matter and is not anticipated by the cited reference. Claim 2 is more specific in calling for gold stud bumps, not mentioned in the cited patent. Claim 3 is deemed patentable for the same reason as claim 1 in calling for solder. Claim 4 is more specific in calling for alignment sensitivity. Claim 5 defines a particular spacing and was indicated as being allowable, as was claim 12. Each of the remaining claims when read in connection with the claim or claims from which they depend, clearly define new and novel combinations.

Claim 11 is directed to the method and again, there is no teaching in the prior art of providing an array of bumps on a male component, a matching array of wells in a female component and filling the wells with bonding materials. The single well shown in the reference is not filled with a bonding material. Furthermore, the claim calls for aligning the components to match the bumps and wells and activating the bonding material to provide a bond. Claim 13 is more specific and is clearly patentable. Claim 14 and 15 replace allowable claims 5 and 12.

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Amdt. dated August 26, 2004
Reply to Office Action of May 21, 2004

In view of the foregoing it is submitted that the application is now in condition for allowance and such is respectfully submitted.

The Commissioner is hereby authorized to charge any other fees determined to be due to Deposit Account 50-2319 (Order No. A-69570/AJT(468330-1249)).

Respectfully submitted,


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